

In the Specification

Please amend the following paragraphs:

[0005] In addition, a novel human sPLA₂ with a predicted molecular mass of 55 kDA and a central domain similar to insect group III sPLA₂s has recently been cloned [15], but it remains to be determined if this sPLA₂ is functional in the mouse species. This novel human sPLA₂ is also disclosed in the French International Patent Application N° 01/59129. All mouse and human sPLA₂s have distinct tissue distributions, suggesting that each of them exert non redundant functions that could be related to their different enzymatic properties [6,16,17], and /or their binding properties to specific receptors [17-19].

[0010] Fig. 2 represents a schematic diagram of the organization of the human chromosome 1p35 sPLA₂s gene cluster. The total length between *hGIIIE* gene and *hGIIC* pseudogene is about 300 kbp. The PAC clone GenBank n° AL358253 is not yet fully sequenced and the hatched bars indicate the different contigs of this PAC clone. The orientation and exon-intron boundaries of the different sPLA₂s genes are schematically shown. The possible presence of 5' non coding exons in the *hGIIC*, *hGIID*, *hGIIIE* and *hGIIIF* genes are unknown. However, based on the sequence of the mouse cosmid KH1 (Genbank n° AC002108) that contains the *mGIIA* gene and a portion of the *MGV* gene, it is likely that the *hGIIA* and *HGV* genes are in a head to tail orientation and that the *hGIIIE* gene is localized closer to the telomere.

[0029] Searching for sPLA₂s homologs in gene databases stored at the National Center for Biotechnology using the tBLASTn sequence alignment program [20] resulted in the identification of a human genomic sequence (~~PAC clone dJ169023, GenBank accession number AL158172~~) of 142849 nucleotides containing several regions of homology with mouse group IIF sPLA₂s. A set

of oligonucleotides was designed from this genomic sequence (sense primer 5'-ATGAAGAAGTTCTTCACCGTGGCCA-3' (SEQ ID N°3 in the list of sequences in the appendix) and reverse primer 5'-ACCCTCCTCCCGCTCTCTCTCTCAAA-3' (SEQ ID N° 4 in the list of sequences in the appendix)) and used in RT-PCT experiments on different human cDNAs. A Dna product of the expected size was amplified from human cDNAs from spleen, heart, and fetal lung. Sequencing of the DNA fragments revealed complete identity with the genomic sequence after its appropriate splicing according to consensus exon-intron boundaries [21].

[0032] The Ca^{2+} and pH dependencies of hGIIF sPLA₂ were measured with POPC vesicles containing 1-palmitoyl-2-[1-³H]palmitoyl-*sn*-glycero-3-phosphocholine vesicles and POPG vesicles containing 1-palmitoyl-2-[1-³H]palmitoyl-*sn*-glycero-3-phosphoglyceril, respectively [7]. Substrate specificity studies were carried out using a slightly modified assay with the fatty acid binding protein [7]. Reaction mixtures contained 30 μM POPC, POPG, or POPS (1-Palmitoyl-2-Oleoyl-*sn*-Glcero-3-phosphoserine) large unicellular vesicles (0.1 μm , prepared by extrusion as described [222]) in Hanks' balanced salt solution with 1 mM Ca^{2+} , 1 mM Mg^{2+} , 9.7 μg fatty acid binding protein, and 1 μm 11-dansyl-undecanoic acid at 37°C. Assays were calibrated by adding a known amount of oleic acid to the complete assay in the absence of enzyme.

[0037] The human PAC clone dJ169023 (~~GenBank n° AL158172~~) of 141,865 bp that contains the *hGIIF* gene was generated by the sequencing program of human chromosome 1, assigning the *hGIIF* gene to this chromosome. In addition to the *hGIIF* gene, this PAC clone contains also the full-length genes for *HGV*, *HGIID*, as well as the *HGIIC* pseudogene. The *hGIIA* and *HGIIIE* genes were found to be localized on the overlapping PAC clone dJ169023 (~~GenBank n°~~

AL358253) in the telomeric direction (Fig. 2). At present, the available sequence of this PAC clone is composed of 49 unordered contigs of different lengths. Based on alignments of these different contigs with the sequence of the PAC clone AL158172, the overlapping sequence between AL158172 and AL358253 is estimated to be about 28 kbp. The relative orientation of *hGIIA* and *HGIIE* with the other *SPLA₂* genes and the exact distances between *HGIIA* and *HGIIE* genes, and *HGIIA* and *HGV* genes are unknown. However, based on the full-length sequence of the mouse cosmid clone of 41,125 bp (GenBank AC002108) that contains the *mGIIA* gene and a portion of the *mGV* gene [23], it is likely that the *hGIIA* and *hGV* genes are organized in a head to tail orientation and that the *hGIIE* gene is localized in the telomeric direction, as presented in Fig. 2.